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ABSTRACT

Contained in the final report is evaluation information for the Goldsboro-Wayne County (North Carolina) Elementary and Secondary Education Act Title III Project for 35 moderately, severely, and profoundly retarded children (3-16 years old) during the 1974-75 school year. The project was evaluated through analysis of behavior change data and questionnaire data. Four instruments--the Learning Progress Scale, the Behavior Maturity Checklist, the Trainable Achievement Record, and the Learning Accomplishment Profile--provided the behavior change data. Two questionnaires, the Parent Questionnaire and the Volunteer Questionnaire, were used to obtain data regarding the perceived effectiveness of the program. A chart indicates that only nine objectives were not met out of 82 initial project objectives in the following areas: self help skills, language development, cognitive development, gross motor development, fine motor development, social skills, self image and independence, infant stimulation, parental involvement, and community awareness. It is concluded that the Developmental School project was a success based on test scores, questionnaire results, and the evaluation reports of the Title III Management Reviews and the National Validation Team. (DB)

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Goldsboro-Wayne County

E.S.E.A. Title III

FINAL EVALUATION REPORT

1974-75

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FINAL REPORT: 1974-75

Goldsboro-Wayne County
E.S.E.A. Title III
Project

"School Experiences for the Developmentally Disabled"

INTRODUCTION

The primary purpose of this final report is to present evidence concerning the degree to which the Goldsboro-Wayne County E.S.E.A. Title III Project has been successful in reaching the objectives established prior to the beginning of the 1974-75 school year. A complete set of the Project objectives for 1974-75 is presented in the Results section under the subheading, "Summary of Findings Related to Stated Project Objectives."

Even though this report will set forth the formal evaluation data, it should be kept in mind that, in the final accounting, a project such as this must be evaluated in terms of the degree to which it enhances the life chances and the range of choices open to the children, their parents, and their teachers.

Most of the children who participate in this project would come under the traditional category called "trainable mental retardation." The children are generally classifiable as moderately and severely retarded. A few of the children function at a level which is classified

as profound mental retardation. These three levels of functioning (moderate, severe, and profound) were described in an earlier report (Goldsboro-Wayne Final Report, 1973-74).

The sections which follow will describe the pupils in greater detail and will describe evaluation procedures and instruments. The results of the formal evaluation of the Project will be presented in tabular form and linked to each specific Project objective.

Readers not familiar with the Project's design may find it useful to review the 1974-75 Project Evaluation Plan (see Appendix A).

DESCRIPTION OF PUPILS

Approximately 35 children were tested with one or more of the evaluation instruments. These evaluation devices were administered mid-year (December, 1974) and again at the end of the regular term (May, 1975). Evaluation procedures and a description of the instruments appear in a later section of the report.

Pupils are assigned to three instructional groups on the basis of chronological age and developmental age. For purposes of evaluation, however, each Project pupil was assigned to one of two groups - Higher Functioning and Lower Functioning. Those pupils who were able to respond appropriately to the Trainable Achievement Record (TAR) were arbitrarily classified as Higher Functioning. Those unable to take the TAR were

arbitrarily classified as Lower Functioning. This arbitrary division was for evaluation purposes only. The TAR requires the child to respond verbally and motorically to a series of stimulus questions and directions. These terms, Lower Functioning and Higher Functioning, are used throughout the final evaluation report, but no pupil is labeled or referred to by these or any categorical terms in the course of daily work with children and parents.

Chronologically, the pupils ranged in age from approximately 3 to 16. Clinically, the majority of Project pupils exhibit various physical, intellectual, and psychosocial stigmata. Some have diagnosed organic brain injury; others have genetic or chromosomal defects such as Down's Syndrome. Some Project pupils fall into a miscellaneous clinical group of undifferentiated and unknown conditions most probably related to endocrinological, biochemical, and/or genetic abnormalities.

The effects of these pathological conditions show up behaviorally in the cognitive, motor, and affective domains in terms of developmental deviations from the norm.

INSTRUMENTS AND PROCEDURES*

In order to determine the Project's effects, two different types of data were collected. The two types of information are descriptively referred to as behavior change data and questionnaire data. Some

*Copies of the Learning Progress Scale and the Behavior Maturity Check List were included in the 1973-74 Final Report. The Trainable Achievement Record and the Learning Accomplishment Profile may be obtained by contacting the Project Director.

behavior change data were obtained by testing Project subjects, while other behavior change information was provided by teachers and aides at the Project school and at a nearby institution. Questionnaire data were obtained from parents and volunteers. All tests and questionnaires used at the Project school were prepared and administered by the external evaluators. A description of the instruments and methods employed to collect each of these different types of information is presented below.

Behavior Change Data. Four instruments, the Learning Progress Scale (LPS), the Behavior Maturity Checklist (BMCL), the Trainable Achievement Record (TAR), and the Learning Accomplishment Profile (LAP) were administered to the Project subjects. These instruments were given to the Project pupils at two times during the year: mid-December and mid-May.

The Learning Progress Scale (LPS) is an adaptation of the Gesell infant scales and was developed specifically for use in the Developmental School, the forerunner of the present Project School. It is one of only three or four instruments available for use with the project children which include norms, thus making it possible to roughly determine a child's level of functioning in each of the sub-scale areas. The Scale consists of four major subscales, each related to a particular skill domain. The four areas are: Language, Motor, Personal-Social, and Adaptive Behavior. Thus it is possible to determine a child's level of functioning and any change which might occur in each of these areas.

The LPS is administered to someone who has observed a rather large sample of the child's behavior in a natural setting. For the most part,

the informant is not required to provide a stimulus to induce a response. His or her role is primarily one of observing the child over a relatively long period of time. In the present evaluation study, information on Project subjects was provided to the external evaluators by staff members who had frequent contact with the children. For use in the present study, the LPS has the advantage of having been used previously with some of the same children. However, due to the Scales's low ceiling, it was used only with Lower Functioning children. Test-retest reliability for a 15-day interval was found to be .87.

The Behavior Maturity Check List (BMCL) was developed by Dr. Donald Soule (1972) for use with severely and profoundly retarded subjects. The instrument, which focuses on self-help skills, contains five subscales: Grooming, Eating, Toileting, Language, and Social Interaction. Eight different scores can be obtained from the use of all five subscales. Each subscale yields a score; a "total self-care" score is derived from a summation of the feeding, toileting, and grooming scores; a "total interpersonal skills" score is derived from a summation of the language and social interaction scores; and a total self-help score is obtained by summing the scores for the five subscales.

Norms have been developed for the BMCL, and it is possible to convert a subject's raw score to a behavior age score, making the outcome of the test developmentally more meaningful. Results of the BMCL have been found to correlate .95, .88, and .93 with the Fairview Self Help Skills Test, Adaptive Behavior Scale, and the Slosson Intelligence Test,

respectively. The test-retest reliability for the BMCL with four to six months elapsed between administrations is .93. This reliability coefficient was obtained from a sample of twenty severely and profoundly retarded subjects.

The BMCL is administered by a person familiar with the instrument and experienced in testing. The information is actually provided by an informant (teacher or attendant, e.g.) who has much contact with the child being evaluated. The person administering the instrument asks questions of the informant which elicit responses regarding one of the self-help skills.

Trainable Achievement Record (TAR). The TAR was developed by Dr. Donald Soule and his research psychology staff at O'Berry Center to measure skills which are taught in programs for moderately retarded children. The test is also used with older and higher functioning severely retarded children and may be used with young mildly retarded children. The TAR is individually administered directly to the child. It has an administration time of 15 to 20 minutes and yields an achievement age score in years and months. The test is given through the use of verbal and demonstrated directions, but it does not require verbal responses. Although the TAR is quite new, it does have an acceptable basis of reliability and validity data. The TAR has three sub-scales - Verbal, Numerical, and Spatial. The test also has a feature common to individually administered devices which adds an important dimension which was heretofore missing. This feature is the clinical observations

of the child which are available to the psychologist during the administration of the TAR. By combining these clinical observations with periodic observations of the children in the classrooms, the cafeteria, and on the playground, the evaluator has the opportunity to seek out inconsistencies in behavior and to gain a much clearer perspective of each child's normal range of behavior.

The TAR has been a welcome and much needed addition to the evaluation instruments for the Goldsboro Developmental School. The capability to measure more academically-related skills which are taught in many of the instructional stations provides an important extension of the potential for systematic evaluation of trainable pupils.

Learning Accomplishment Profile (LAP). The LAP is not an evaluation instrument in the usual sense. The LAP is a competency-based curriculum. It is divided into six areas and each area has specific competencies associated with it. The six instructional areas of the LAP are: Gross Motor, Fine Motor, Social Skills, Self-Help, Cognitive, and Language. The Developmental School's program is organized around these six instructional areas.

The LAP contributes to Project evaluation because detailed records for each child are kept by the instructional staff members who have the responsibility for each of the work (instructional) stations. This makes it possible to chart each pupil's progress on a continuous basis. It also allows the external evaluation team to measure developmental progress toward the achievement of the LAP competencies for each pupil and for groups of pupils.

The data resulting from the administration of the LPS, LAP, TAR, and the BMCL were analyzed to show changes in the observed behavior of Project children. To visually illustrate these behavioral changes, the data for each child has been plotted on a time graph to show the changes which have occurred over one or more semesters of intervention between the various administrations of the scales.

In addition to plotting the individual data for each child, a statistical test was made to determine if there was a significant difference between Spring 1974 and Spring 1975 LPS, LAP, TAR, and BMCL scores for Project children. The results of such tests make it possible to study the relationship between the period of intervention and the amount of behavioral change.

Questionnaire Data. Two different questionnaires, the Parent Questionnaire and the Volunteer Questionnaire, were used to obtain data regarding the perceived effectiveness of the program. The two instruments were designed specifically for use with these two unique audiences. All items contained in these questionnaires are directly related to the Project's objectives. The Parent Questionnaire and the Volunteer Questionnaire are identical to the form used last year. In many instances volunteers are not familiar with some aspects of the program about which questions are asked. For this reason, a "cannot answer" column is included.

The format used in the construction of these two questionnaires is one which has been field tested by the evaluators in other projects. Results from these earlier evaluations suggest that the format is quite

suited to its present use. Although the questionnaires are designed for use by readers, they have been administered orally to non-readers on occasion.

Parent Questionnaires were given directly to parents who picked up their children at school. Most other parents received Questionnaires via the person or persons transporting their children.

Volunteer Questionnaires (see Table 8) were given to 30 volunteers during the third week of May, 1975. The completed Questionnaires were collected by the volunteer coordinator and were mailed to the external evaluators as soon as possible. Twenty-five questionnaires, or about 85%, were returned.

The results collected through the use of the aforementioned questionnaires are reported by showing the percentage and frequencies of each group (parents and volunteers) checking each of the categories in their respective questionnaires. These results appear in Tables 7 and 8 which appear on pages 28 and 31. Copies of the questionnaires have not been included in the Appendix since they appear in their original form as Tables 7 and 8.

Information Relative to Specific Project Objectives. In addition to the types of information already discussed, the Results section also contains information relative to the objectives developed by the project director and his staff. In order to maximize the meaningfulness of this information, it is presented along with the project's specified objectives. For each objective there is an indication of whether or not the objective

was met. Determination of whether or not an objective was satisfied was made by the external evaluators based upon several sources of information. For those objectives not met, an explanation is presented in the Discussion section.

Unexpected Outcomes. The Results section of this report also contains information relative to unpredicted or unexpected outcomes of this project. This information is derived from the evaluators' observations during 16 on-site visits and through interviews with informants.

Design and Procedures of Study. The basic design employed in the present evaluation study to determine the project's effect on the children is a repeated measures design. However, this was not a factorial design since only one group was analyzed at a time. Therefore, a t-test statistical procedure for correlated groups was employed to determine if there was a significant difference between scores obtained at two different times on the criterion measures. An analysis of co-variance procedure was used to test for significant differences between project and institutional children on the BMCL. The following instruments were used with project pupils and comparisons were made on the basis of each of the designated subscales.

LPS Subscales

1. Language
2. Motor
3. Personal-Social
4. Adaptive Behavior

a. Spring 1974 results were compared with Mid-Year 1974-75 results.

b. Spring 1974 results were compared with Spring 1975 results.

BMCL Subscales

1. Grooming
2. Eating
3. Toileting
4. Language
5. Social Interaction

a. Spring 1974 results were compared with Mid-Year 1974-75 results.

b. Spring 1974 results were compared with Spring 1975 results.

c. Comparison between Project pupils and residential institution children on Mid-Year 1974-75 scores, using Mid-Year 1973-74 scores as the covariate.

LAP Subscales

1. Gross Motor
2. Fine Motor
3. Social Skills
4. Self Help
5. Cognitive
6. Language

a. Spring 1974 results were compared with Mid-Year 1974-75 results.

b. Spring 1974 results were compared with Spring 1975 results.

TAR Subscales

1. Verbal
2. Numerical
3. Spatial

a. Spring 1974 results were compared with Mid-Year 1974-75 results.

b. Spring 1974 results were compared with Spring 1975 results.

The LPS was used only with Lower Functioning children, and the TAR was used only with the Higher Functioning children. Only the results for the Spring 1974 and Spring 1975 comparisons and for the comparison between project and institutional groups are presented in the body of this report. The results obtained by comparing Spring 1974 and Mid-Year 1974-75 are presented in the Mid-Year Evaluation Summary Report 1974-75. (Note: The Mid-Year Evaluation Report may be obtained by writing the Project Director.) Only the objectives for the full year 1974-75 are included in the present report and are considered to supersede the objectives stated for mid-year 1974-75.

Even though this report is being prepared at the conclusion of the final year of funding of The Developmental School as an E.S.E.A. Title III project, it focuses primarily on that period of operation from Spring 1974 to Spring 1975. Exceptions to this include the comparison between project and institutional children (Mid-Year 1973-74 and Mid-Year 1974-75) and BMCL developmental graphs prepared for each child in the project. The BMCL developmental graphs (see Appendix B) reflect the performance of each child at the time of each test administration. (Developmental graphs for all project children in attendance in May 1975 for all evaluation measures may be obtained from the Project Director.)

The most valid comparisons are thought to be those between Spring 1974 and Spring 1975 test data. The results obtained from such comparisons should be examined first in terms of the amount of predicted behavioral change specified in the related objectives. Next, the reported statistical

significance of the change should be checked. The latter information provides an indication of the amount of confidence that can be placed in the observed changes. It should be pointed out, however, that the statistical tests were not adjusted for predicted or anticipated changes. Rather, they were tests to determine if the observed change was significantly greater than zero.

The amount of predicted change was calculated on the basis of the previous rate of development. The reported predictions are conservative estimates since they were based on a regular school year of attendance, not including summer school. Many project pupils did attend the Developmental School's summer program.

RESULTS AND DISCUSSION

This section contains tabular reports of all Spring 1974 and Spring 1975 comparisons of project children. The Parent and Volunteer Questionnaire results are also presented in this section. In addition to the aforementioned statistical results, this section contains a summary of the results for specifically stated project objectives and a description of unexpected outcomes.

LPS Results

Both Spring 1974 and Spring 1975 LPS scores were available for 16 Lower Functioning project children. The results obtained by comparing these two sets of LPS scores are reported in Table 1.

Table 1

Means, Standard Deviations, and t-Test Results For
Spring 1974 and Spring 1975 LPS Subscale Scores
For Lower Functioning Children (N=16)

SUBSCALE	Spring 1974		Spring 1975		Amount of Change	Obtained t-Value	Level of Significance**
	Mean	S.D.	Mean	S.D.			
Language	10.43	7.28	11.90	8.92	1.47*	.557	NS
Motor	24.00	10.62	22.68	10.20	-1.32	-.701	NS
Personal-Social	17.56	9.58	21.84	8.93	4.28*	2.32	.025
Adaptive-Behavior	14.81	6.82	18.65	6.04	3.84*	2.99	.005

*Amount of Change surpassed that specified in the Project objective. The Amount of Change, like the Mean and S.D., is reported in terms of months of development.

**With 15 df, $p < .025$ when $t = 2.131$
With 15 df, $p < .005$ when $t = 2.947$
(one-tailed tests)

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As can be seen by examining Table 1, the differences between Spring 1974 and Spring 1975 LPS scores are statistically significant for only two of the variables, Personal-Social ($p < .025$) and Adaptive Behavior ($p < .005$). The amount of change observed for these two variables exceeds that stated in the respective objectives. Another variable for which the amount of change exceeded that predicted was Language. However, the Spring 1975 Language scores were not significantly different from the Spring 1974 scores. On the remaining LPS subscale variable, Motor, the amount of change was neither statistically significant nor as large as the amount predicted. In fact, according to the obtained LPS scores, the project pupils regressed 1.32 months from the Spring of 1974 to the Spring of 1975.

It is difficult to understand why so little progress was made in the Language area and why children appeared to have regressed in the Motor area. The results in these two areas are quite similar to those presented in the Mid-Year Evaluation Summary Report 1974-75. The results contained in that Report (see Appendix B) show that project pupils made only .73 months progress in Language and that they regressed by 1.62 months in the Motor area between the Spring of 1974 and mid-year 1974-75.

Three factors which might have influenced the LPS results should be mentioned here. The first has to do with the low level of functioning of children with whom the LPS was used. The second factor has to do with the relatively low scores received on the LPS as compared to those received on essentially the same variables on other tests (e.g., LAP or BMCL). The

third factor is the relatively low reliability of the LPS. Obviously, the first two factors mentioned above contribute to the third, the low reliability of the LPS. All three contribute to the acquisition of scores which are inaccurate indicators of the children's developmental status. Thus, it is possible that the Spring 1974 LPS scores were over-estimates of the children's development relative to the scores obtained Mid-Year 1974-75 and Spring 1975. The latter two sets of scores show considerable agreement and reflect the anticipated trends in developmental progress.

Since the subscales of the LPS, certainly the Language and Motor subscales, are essentially the same as those contained in other tests used in the evaluation of the Developmental School program, and since the LPS results tend to differ from those obtained from the use of comparable measures whose results are in general agreement, it seems legitimate to conclude that the LPS results are less valid than the others. This conclusion is supported by the fact that of 18 Spring 1974-Spring 1975 comparisons only the change on the LPS Motor subscale failed to exceed the amount predicted. Related to this is the fact that of the 18 subscale comparisons, only two, LPS Language and LPS Motor, failed to show that the Spring 1975 scores were significantly different from those for Spring 1974.

BMCL Results

Two types of BMCL results are reported in this section. The first type is based on comparisons between Spring 1974 and Spring 1975 BMCL scores for all project pupils. The second type of result presented

in this section is based upon a comparison of LMCL scores for project pupils with those obtained from a comparable group of children in a residential institution. A comparison of Spring 1974 and Spring 1975 BMCL scores and the resulting statistical data are reported in Table 2.

The results reported in Table 2 reveal that the amount of change observed for each of the five subscale variables exceeds that predicted. It is also revealed that the differences between the Spring 1974 and Spring 1975 BMCL scores are highly significant in all cases. On the average, project children appear to be progressing at the rate of approximately six months per year, or about one-half the normal rate. The major exception to this rate was in the area of Eating, a behavior that is likely quite responsive to systematic training. The amount of progress, 11.79 months, made in Eating is roughly comparable to the normal rate. However, the reader should be reminded that the project children are still functioning at retarded levels in all BMCL skill areas. The data do indicate, however, that the rate at which project children are falling behind is decelerating, an unusual phenomenon for this population of children.

The results obtained from comparing Spring 1974 and Spring 1975 BMCL scores are, for the most part, very impressive. However, if only this one type of comparison were made, it would be very easy to become too parochial. To avoid this situation, it was thought desirable to compare the gains of project children with those of an external reference group. Such a group was identified at a nearby residential institution.

Table 2

Means, Standard Deviations, and t-Test Results For
Spring 1974 and Spring 1975 BMCL Subscale Scores
For All Project Children (N=29)

SUBSCALE	Spring 1974		Spring 1975		Amount of Change	Obtained t-Value	Level of Significance**
	Mean	S.D.	Mean	S.D.			
Grooming	25.86	7.70	31.82	10.32	5.96*	5.44	.0005
Eating	26.03	12.19	37.82	14.43	11.79*	4.67	.005
Toileting	18.27	13.71	23.93	13.04	5.66*	3.24	.0005
Language	20.86	14.28	27.27	12.54	6.41*	3.98	.0005
Social Interaction	28.24	11.42	35.51	11.83	7.27*	6.98	.0005

*Amount of Change Surpassed that specified in the Project objective. The Amount of Change, like the Mean and S.D., is reported in terms of months of development.

**With 28 df; $p < .005$ when $t = 2.763$
With 28 df, $p < .005$ when $t = 3.674$ } (one-tailed tests)

Fourteen children from the residential program were matched with 14 project pupils. Matching was based upon mental age and chronological age. Both subjects in a matched pair were within three mental and six chronological months of each other.

The means, standard deviations, and analysis of covariance results for the Developmental School-institutional comparisons are reported in Table 3. The statistical analysis was made on adjusted BMCL scores for Mid-year 1974-75, using Mid-year 1973-74 BMCL scores as the covariate.

The findings presented in Table 3 show that the Developmental School group and the matched residential group were quite similar in terms of Mid-year 1973-74 BMCL behavior age scores with means of 28.57 and 28.92 respectively. However, the amount of change occurring within groups over the following year differed considerably. The residential group made 8.08 months of progress, while the Developmental School group gained only 3.00 months. Even though the difference between the two groups is not statistically significant, it should be noted that the observed difference is in the opposite direction of that stated in the related project objective. Four possible explanations for this discrepancy seem worth mentioning here.

First, it should be pointed out that the BMCL serves as the curriculum guide in the institutional program as does the LAP in the project program. Project pupils show more progress on the LAP than on any of the other instruments used in their evaluation. It seems reasonable, therefore, to assume that the residential children scored higher on the BMCL than they likely would have on other similar measures.

Table 3

Analysis of Covariance Results Comparing
Developmental School Children with Residential Facility Children
On Mid-Year 1974-75 Behavior Age Scores

Group	Behavior Age Mid-Year 1973-74	Behavior Age Mid-Year 1974-75	*Amount of Change	Obtained F-Value	Level of Significance
Developmental School (N=14)	Mean 28.57 S.D. 10.15	31.57 9.50	3.00	3.076	NS
Residential Facility (N=14)	Mean 28.92 S.D. 9.91	37.00 10.42	8.08		

*Change scores are reported only to illustrate the amount and direction of change. An analysis of covariance procedure was used to compare the two groups on Mid-Year 1974-75 Behavior Age scores using Mid-Year 1973-74 Behavior Age scores as a covariate.

A second factor which might have influenced the finding in the aforementioned comparison has to do with the conditions under which the BMCL was administered. All BMCL data for project pupils was collected by the external evaluators. However, due to institutional regulations and practices it was not possible for the external evaluators to administer the BMCL to the residential children. Very little is known about which or how many test administrators were used. Likewise, little is known about the informants. With the project group, the same administrator and, for the most part, the same informants were used mid-year 1973-74 and mid-year 1974-75. The extent to which this is true for the residential group is not known.

A third possible reason for the difference between the two groups is that for some reason the changes in the scores of project pupils for the one-year period on which the comparison was based were smaller than for other one year periods. This was generally true on all evaluation instruments. This may have been due to the fact that the evaluation instruments were administered by the external evaluators for the first time during the 1973-74 school year. For this reason, it is possible that the mid-year 1973-74 BMCL scores were actually overestimates of true developmental status. For whatever reason, it is observed that the project pupils' BMCL scores for the one-year period, mid-year 1973-74 to mid-year 1974-75, are much smaller than for the one-year period Spring 1974 to Spring 1975.

Another possible explanation, and one which cannot be dismissed,

for the difference between the groups is that the program at the residential institution was, in fact, more effective than was the Developmental School's program. For persons who have observed the Developmental School program in operation and who have studied the various indicators of its effects, this speculation is difficult to accept. Rather, one is tempted to believe the results are due to some artifact of the testing. This may or may not be the case.

LAP Results

Spring 1974 and Spring 1975 LAP scores were compared for 23 project pupils. The results of these comparisons are reported in Table 4.

Since the LAP is used as the basis for the Developmental School curriculum, it was anticipated that project pupils would show greater gains on the LAP subscales than on those of other evaluation instruments. This is exactly what did occur. As can be seen in Table 4, the amount of change from Spring 1974 to Spring 1975 varies from 6.48 months in Gross Motor to 11.87 months in Self Help. All of the LAP subscale gains are greater than those predicted and are statistically significant at the .0005 level.

The reader should note the particularly low Spring 1974 Language subscale mean score. This is quite typical of the population of children served by the Developmental School project. It should also be noted that 9.00 months of developmental progress was observed in Language over the 12 month period, Spring 1974-Spring 1975. This is quite remarkable and can surely be attributed to the systematic language training offered to project pupils. Such a program is rather unique for moderately and

Table 4

Means, Standard Deviations, and t-Test Results For
Spring 1974 and Spring 1975 LAP Subscale Scores
For All Project Children (N=23)

SUBSCALE	Spring 1974		Spring 1975		Amount of Change	Obtained t-Value	Level of Significance**
	Mean	S.D.	Mean	S.D.			
Gross Motor	33.34	16.54	39.82	17.59	6.48*	4.05	.0005
Fine Motor	36.34	13.28	44.60	14.86	8.26*	6.66	.0005
Social Skills	36.65	15.36	47.86	16.75	11.21*	4.43	.0005
Self Help	36.56	14.32	48.43	16.57	11.87*	7.81	.0005
Cognitive	30.39	14.70	39.91	18.61	9.52*	5.61	.0005
Language	22.52	16.37	31.52	20.09	9.00*	4.11	.0005

*Amount of Change surpasses that specified in the Project objective. The Amount of Change, like the Mean and S.D., is reported in terms of months of development.

**With 22 df, p .0005 when t = 3.792 (one-tailed test)

severely retarded children.

Other data presented in Table 4 appear to be generally self-explanatory. Thus, no further explanation is presented here.

TAR Results

TAR data, like that from the BMCL and the LAP, are very impressive. The TAR mean scores, standard deviations, and statistical test results are reported in Table 5.

The amounts of change on the three TAR variables, Verbal, Numerical, and Spatial, were 8.62, 10.25, and 12.25 months respectively. All changes exceeded the predicted amounts and were statistically significant.

TAR data differ from that collected with other project evaluation instruments in that only the TAR is administered directly to the child. Each item in the TAR requires one or more responses from the child being tested. Informants are not used with the TAR. For these reasons, the TAR is probably the truest and most objective measure of the effects of the Developmental School program. It should be noted, however, that the information reported in Table 5 is based on only eight children. This is due to the fact that only the more advanced students in the project were able to take a test of this type. One should also note that the TAR measures fewer, and somewhat different, variables than those assessed by the other evaluation instruments used in this project.

Summary of Results for Project Pupils

Due to the large number and similarity of subscales contained in the different instruments, it was thought that a summary of the results would permit the reader to compare predicted changes with observed changes for

Table 5

Means, Standard Deviations, And t-Test Results For
Spring 1974 and Spring 1975 TAR Subscale Scores
For Higher Functioning Children (N=8)

SUBSCALE	Spring 1974		Spring 1975		Amount of Change	Obtained t-Value	Level of Significance**
	Mean	S.D.	Mean	S.D.			
Verbal	47.50	13.95	56.12	13.99	8.62*	3.13	.01
Numerical	30.25	9.42	40.50	17.36	10.25*	2.32	.05
Spatial	32.37	9.21	44.62	11.80	12.25*	3.36	.01

*Amount of Change surpassed that specified in the Project objective. The Amount of Change, like the Mean and S.D., is reported in terms of months of development.

**With 7 df, $p < .05$ when $t = 1.895$
With 7 df, $p < .01$ when $t = 2.998$
} (one-tailed test)

each of the subscales. A summary of this type also permits easy comparisons of similar subscales contained in the different instruments. The summary also indicates the statistical significance of the difference between Spring 1974 scores and Spring 1975 scores for each of the subscales.

The summary data discussed above is presented in Table 6. The information presented in Table 6 is thought to be self-explanatory and is not discussed further in this report.

Parent Questionnaire Results

The Parent Questionnaire used as a part of this year's evaluation is exactly the same as that used in 1973 and 1974. The fact that the instrument has not been changed makes it possible to compare parents' responses over the past three years. The parents' responses relative to the Developmental School project for 1974-75 are reported in Table 7.

Table 7 presents each of the questions contained in the Parent Questionnaire. For each question Table 7 also shows the number of parents checking each of the response choices. As can be seen by examining Table 7, the largest number of responses appear in the "extremely effective" column. The second largest number of responses are in the category "moderately effective." With only two exceptions, more than half of the responses to specific questions were in the "extremely effective" category. The two exceptions are Questions 6 and 7, questions having to do with Language and Motor skills. Even for these questions nearly half of all responses appear in the category "extremely effective."

The Parent Questionnaire results for 1974-75 are essentially the same as those for 1972-73 and 1973-74. Parents now see the Project

Table 6

A Summary of Results From Comparing
Spring 1974 and Spring 1975 Scores
On 18 Subscale Variables

SUBSCALE VARIABLES	*Predicted Change	*Observed Change	Significance of Difference Between Spring 1974-Spring 1975
LPS Subscales			
Language	1.4	1.47	NS
Motor	1.4	-1.31	NS
Personal-Social	2.4	4.28	.025
Adaptive Behavior	1.4	3.84	.005
BMCL Subscales			
Grooming	1.6	5.96	.0005
Eating	5.0	11.79	.0005
Toileting	1.4	5.66	.005
Language	1.4	6.41	.0005
Social Interaction	2.4	7.27	.0005
LAP Subscales			
Gross Motor	1.8	6.48	.0005
Fine Motor	4.6	8.26	.0005
Social Skills	5.0	11.21	.0005
Self Help	1.8	11.87	.0005
Cognitive	5.0	9.52	.0005
Language	5.0	9.00	.0005
TAR Subscales			
Verbal	5.0	8.62	.01
Numerical	3.4	10.25	.05
Spatial	1.4	12.25	.01

*Reported in months of development

Table 7

PARENT QUESTIONNAIRE RESULTS

Questions	Extremely Effective	Moderately Effective	Slightly Effective	Not Effective
1. How effective has the Project been in reporting your child's progress to you?	24	8	1	
2. How effective has the Project been in providing materials and activities appropriate to your child's special needs?	20	13		
3. To what extent has the Project been effective at giving enough individualized attention to your child?	27	6		
4. How effective has the Project been in communicating its specific objectives for your child?	22	10	1	
5. How effective has the Project been in communicating to you what you can do to facilitate your child's development?	17	12	4	
6. How effective has the Project been in helping your child develop appropriate language skills?	14	13	2	3
7. How effective has the Project been in helping your child develop appropriate motor (large muscle) skills?	15	18		

	Extremely Effective	Moderately Effective	Slightly Effective	Not Effective
8. How effective has the Project's program been in helping develop appropriate personal-social skills (eating, toilet, etc.)?	17	9	8	
9. How effective has the Project's program been in helping your child develop appropriate adaptive behavior skills (vision, small muscle)?	18	11	3	
10. How effective has the Project's program been in making school an enjoyable experience for your child?	30	3		
11. How effective has the Project's program been in motivating your child to work to his/her potential?	17	14	1	
12. How effective has the Project been in helping your child become more self-sufficient?	19	11	2	
13. To what extent has the Project been effective in adjusting itself to meet the needs of the children it serves?	26	6		
14. How effective has the Project been in developing and maintaining positive attitudes on the part of staff toward the children?	25	8		
15. How effective has the Project been in accepting and utilizing suggestions and constructive criticism?	19	10	4	

as being little more effective than did parents in either of the previous school years. However, this is due primarily to the fact that the Project has been perceived from the beginning as being very effective. Few school projects are ever rated as favorably by parents as the Developmental School program has been for the past three years.

Volunteer Questionnaire Results

Volunteer Questionnaires were completed by 25 of the 30 volunteers working with the Developmental School project in May 1975. The response categories in the Volunteer Questionnaire are the same as those in the Parent Questionnaire except that a "cannot answer" choice is included in the former instrument. This is necessary since many of the volunteers are involved in limited aspects of the project and, therefore, have no basis for answering certain questionnaire items. The results obtained in May 1975 from the 25 responding volunteers are presented in Table 8.

A predominance of volunteer responses, like those from parents, appear in the two most favorable categories, "extremely effective" and "moderately effective." Clearly the largest number of responses, and over half of all ratings, appear in the "extremely effective" column. Every single aspect of the program received a favorable rating.

Unexpected Outcomes

Among the total number of unexpected Project outcomes, four are of sufficient import to be included in the Final Report.

1. Clearly the most important event in the life of the Developmental School during 1974-75 was being selected to apply for validation. The process of trying to achieve this status involves inviting a team of

Table 8

VOLUNTEER QUESTIONNAIRE RESULTS

QUESTIONS	Extremely Effective	Moderately Effective	Slightly Effective	Not Effective	Cannot Answer
1. How effective has the Volunteer Program been in contributing to the attainment of the Project's objectives?		6	2		3
2. How effective were the training sessions for volunteers?	9		1		2
3. How effective was the Volunteer's Handbook in describing and explaining the Project and the role of volunteers?		9			
4. How effective was the Volunteer Rally Day in introducing newcomers to the school and the project?	13	3			
5. How effective are the Project's methods of recruiting volunteers?	6		3	1	10
6. How effective has the Parent-Volunteer-Staff (PVSO) been in achieving its goals and objectives?	8		2		9
7. How effective have the various media, e.g., radio, TV, newspapers, been in making the Project known to the community?					
8. How effective has the Project been in reporting through parent-staff conferences, newsletters, etc. to parents about the progress of their children?	14	1			

	Extremely Effective	Moderately Effective	Slightly Effective	Not Effective	Cannot Answer
9. How effective has the Project been in communicating to you the specific objectives for the children?		12	1		1
10. How effective has the Project been in motivating the children to work to the fullest of their potential?		4	1		3
11. How effective has the Project been in making school an enjoyable experience for the children?		2			2
12. How effective has the Project been in helping the children become self-sufficient?	16		1		3
13. How effective and flexible has the Project been in making changes and modifications to meet the needs of the children?		4			4
14. How effective has the Project been in accepting and utilizing suggestions and constructive criticism?	8	8	1		
15. How effective has the Project been in developing and maintaining positive attitudes on the part of the staff toward the children?	14	6			
NOTE: Questions 16-22 are to be answered only by those volunteers who worked in one of the classrooms. If you did not work in one of the classrooms, please skip to the Comments section at the end of the questionnaire.					
16. How effective were the aids and teachers in communicating work instructions to you?		5	1		
17. How effective has the Project been in providing individualized attention for the children?	18	6			

	Extremely Effective	Moderately Effective	Slightly Effective	Not Effective	Cannot Answer
18. How effective has the Project been in providing materials and experiences appropriate for the children?		8			
19. How effective has the Project's program been in helping the children develop appropriate language skills?	13		2		2
20. How effective has the Project's program been in helping the children develop appropriate gross motor (large muscle) skills?	13				1
21. How effective has the Project's program been in helping the children develop appropriate personal-social skills (eating, toileting, grooming, etc.)?	17				1
22. How effective has the Project's program been in helping the children develop appropriate adaptive behavior skills (eye-hand coordination, fine motor skills)?	15				3
COMMENTS: In addition to any general comments you might wish to make, please offer any suggestions you have about how the Project might more effectively recruit, train, and utilize volunteers. THANK YOU FOR YOUR COOPERATION.					

experts from other states to "validate" the fact that a project has successfully demonstrated the effectiveness of its practices and procedures. After many long hours of effort by the Project staff, Title III consultant, and external evaluators the validation application was completed. On May 1, 1975, the Project was informed by the chairman of the Validation Team that it had achieved validation, thus ensuring a fourth year of support to serve as an "outreach" project.

2. The Project received very high ratings from the Management Review Team in February, 1975. This team of in-state educators, project directors, university faculty, and administrators provided the Project with useful feedback about its total operation.

3. Administratively, the major shift during 1974-75 was the reorganization of Project pupils into three groups rather than two. Higher functioning children were divided into a pre-school (CA's 3-7) group and a school-aged (CA's 8-14) group. The third group was composed of older, lower functioning pupils. Even though adequate and appropriate space continues to be a problem, especially for the school-aged children in the mobile classroom, the new organization enhanced the curriculum and enabled the staff to function more effectively.

4. Work continued in the development of the Group Free Play Observation System. A psychology intern from N. C. State University worked with the external evaluators on the system. Several hours of group free play were video taped and used to validate the category system.

Conclusions

Based on all of the available objective evidence generated in the evaluation of the Developmental School Project over the past three years, it must be concluded that the program is a resounding success. The evidence which permits such a conclusion comes first from test scores which include both informant data and direct measures of the children's performance. The results of testing over the three year span are vividly illustrated in the developmental graphs drawn up for each child (see, e.g., the BMCL developmental graphs in Appendix C).

Second, the observations and opinions of the parents, who are the most critical consumers of the program's services, and of the volunteers, who are afforded an intimate and interactive view of the day-to-day functioning of the project, strongly support the validity of the claims of the program's success. Their recorded perceptions of the Project's effectiveness at meeting its specified objectives indicate their belief in the excellence of the program.

Third, the evaluation reports of the E.S.E.A. Title III Management Reviews for these three years and the report of the National Validation Team (1975) clearly confirm that the Developmental School met and surpassed their stated objectives.

One of the frustrating concomitants of formal evaluation procedures, however, is that when confronted with such an array of objective evidence of success, the evaluator still is unable to clearly identify and describe the specific factors which led to the successful results. Certainly, in

the case of the Developmental School, there are a number of components or systems that are identifiable as being related to the programs effectiveness. I.e., it is possible to list what some of the success factors are, but to say with confidence how these factors were interconnected into a system is exceedingly difficult. So many of these separate factors are not measurable and yet are inextricably bound to the effectiveness of the total system of factors which comprise the Project. The administrative support, the leadership of the Project, the attitude and spirit of the staff, the cooperation of parents, the commitment of the many volunteers - these are only a few of the unmeasurable, yet critical, components which combine with the curriculum, facilities, materials, and instruction to make up the delivery of services called the Developmental School Project.

Summary of Findings Related to Stated Project Objectives

This summary of evaluation results is presented in a format intended to show the relationship between Project objectives and Project outcomes. The specific objectives appear exactly as they were developed, written, and filed with the E.S.E.A. Title III Project Consultant in the Division of Development, North Carolina Department of Public Instruction.

SUMMARY OF EVALUATION RESULTS RELATED TO PROJECT OBJECTIVES

Objective	Met	Not Met
Performance Objectives Relative to Self-Help Skills		
By May 15, 1975		
1.1 Project children will make an average of at least 1.4 months progress on the LPS Adaptive Behavior Subscale.	*	
1.2 Project children will make an average of at least 1.6 months progress on the BMCL Grooming Subscale.	*	
1.3 Project children will make an average of at least 5.0 months progress on the BMCL Eating Subscale.	*	
1.4 Project children will make an average of at least 114 months progress on the BMCL Toileting Subscale.	*	
1.5 Project children will make an average of at least 1.8 months progress on the LAP Self-Help Skills Subscale.	*	
Implementation Objectives Relative to Self-Help Skills		
2.1 By July 15, 1974 project children's self-help skills will have been evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	

Objective	Met	Not Met
2.2 By July 31, 1974 an individual set of instructional objectives for self-help skills will have been written for each project child.	*	
2.3 By August 1, 1974 appropriate project children will be involved in a daily training program of self-help skills as evidenced by the room schedule for learning stations.	*	
2.4 By October 31, 1974 project children's self-help skills will have been re-evaluated, using the LAP, to determine their individual levels of functioning.	*	
2.5 By November 15, 1974 an individual set of instructional objectives for self-help will have been revised for each project child.	*	
2.6 By February 28, 1975 project children's self-help skills will have been re-evaluated, using the LAP, to determine their developmental levels of functioning.	*	
2.7 By March 15, 1975 an individual set of instructional objectives for self-help skills will have been revised for each project child.	*	
Performance Objectives Relative to Language Development		
By May 15, 1975		
3.1 Project children will make an average of at least 1.4 months progress on the LPS Language Subscale.		*

Objective	Met	Not Met
3.2 Project children will make an average of at least 1.4 months progress on the BMCL Language Subscale.	*	
3.3 Project children will make an average of at least 5.0 months progress on the LAP Language Development Subscale.	*	
3.4 Project children will make an average of at least 5.0 months progress on the TAR Verbal Subscale.	*	
Implementation Objectives Relative to Language Development		
4.1 By July 15, 1974 project children's language development will have been evaluated, using the LAP, to determine their individual levels of functioning.	*	
4.2 By July 31, 1974 an individual set of instructional objectives for language development will have been written for each project child.	*	
4.3 By August 1, 1974 appropriate project children will be involved in a daily program of language development as evidenced by the room schedule for learning stations.	*	
4.4 By October 31, 1974 project children's language development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
4.5 By November 15, 1974 an individual set of instructional objectives for language development will have been revised for each project child.	*	

Objective	Met	Not Met
4.6 By February 28, 1975 project children's language development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
4.7 By March 15, 1975 an individual set of instructional objectives for language development will have been revised for each project child.	*	
Performance Objectives Relative to Cognitive, Gross Motor, Fine Motor, and Social Skills Development		
By May 15, 1975		
5.1 Project children will make an average of at least 1.4 months progress on the LPS MOTOR SUBSCALE.		*
5.2 Project children will make an average of at least 1.8 months progress on the LAP GROSS MOTOR SUBSCALE.	*	
5.3 Project children will make an average of at least 4.6 months progress on the LAP FINE MOTOR SUBSCALE.	*	
5.4 Project children will make an average of at least 5.0 months progress on the LAP COGNITIVE SUBSCALE.	*	
5.5 Project children will make an average of at least 3.4 months progress on the TAR NUMERICAL CONCEPTS SUBSCALE.	*	
5.6 Project children will make an average of at least 1.4 months progress on the TAR SPATIAL CONCEPTS SUBSCALE.	*	

Objective	Met	Not Met
5.7 Project children will make an average of at least 2.4 months progress on the LPS PERSONAL-SOCIAL SUBSCALE.	*	
5.8 Project children will make an average of at least 2.8 months progress on the BMCL SOCIAL INTERACTION SUBSCALE.	*	
5.9 Project children will make an average of at least 5.0 months progress on the LAP SOCIAL SKILLS SUBSCALE.	*	
Implementation Objectives Relative to Cognitive Development		
6.1 By July 15, 1974 project children's cognitive development will have been evaluated using the LAP to determine their individual developmental levels of functioning.	*	
6.2 By July 31, 1974 an individual set of instructional objectives for cognitive development will have been written for each project child.	*	
6.3 By August 1, 1974 appropriate project children will be involved in a daily program of cognitive development as evidenced by the room schedule for learning stations.	*	
6.4 By October 31, 1974 project children's cognitive development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
6.5 By November 15, 1974 an individual set of instructional objectives for cognitive development will have been revised for each project child.	*	

Objective	Met	Not Met
6.6 By February 28, 1975 project children's cognitive development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
6.7 By March 15, 1975 an individual set of instructional objectives for cognitive development will have been revised for each project child.	*	
Implementation Objectives Relative to Gross Motor Development		
7.1 By July 15, 1974 project children's gross motor development will have been evaluated using the LAP to determine their individual developmental levels of functioning.	*	
7.2 By July 31, 1974 an individual set of instructional objectives for gross motor development will have been written for appropriate project children.	*	
7.3 By August 1, 1974 appropriate project children will be involved in a daily program of gross motor development as evidenced by the room schedule for learning stations.	*	
7.4 By October 31, 1974 project children's gross motor development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
7.5 By November 15, 1974 an individual set of instructional objectives for gross motor development will have been revised for appropriate project children.	*	

Objective	Met	Not Met
7.6 By February 28, 1975 project children's gross motor development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
7.7 By March 15, 1975 an individual set of instructional objectives for gross motor development will have been revised for appropriate project children.	*	
Implementation Objectives Relative to Fine Motor Development		
8.1 By July 15, 1974 project children's fine motor development will have been evaluated using the LAP to determine their individual levels of functioning.	*	
8.2 By July 31, 1974 an individual set of instructional objectives for fine motor development will have been written for each project child.	*	
8.3 By August 1, 1974 appropriate project children will be involved in a daily program of fine motor development as evidenced by the room schedule for learning stations.	*	
8.4 By October 31, 1974 project children's fine motor development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
8.5 By November 15, 1974 an individual set of instructional objectives for fine motor development will have been revised for each project child.	*	

Objective	Met	Not Met
8.6 By February 28, 1975 project children's fine motor development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
8.7 By March 15, 1975 an individual set of instructional objectives for fine motor development will have been revised for each project child.	*	
Implementation Objectives Relative to Social Skills		
9.1 By July 15, 1974 project children's social development will have been evaluated using the LAP to determine their individual developmental levels of functioning.	*	
9.2 By July 31, 1974 an individual set of instructional objectives for social development will have been written for each project child.	*	
9.3 By August 1, 1974, appropriate project children will be involved in a daily program of social development.	*	
9.4 By October 31, 1974 project children's social development will have been re-evaluated, using the LAP, to determine their individual developmental levels of functioning.	*	
9.5 By November 15, 1974 an individual set of instructional objectives for social development will have been revised for each project child.	*	

Objective	Met	Not Met
9.6 By February 28, 1975 project children's social development will have been re-evaluated, using the LAP, to determine their individual levels of functioning.	*	
9.7 By March 15, 1975 an individual set of instructional objectives for social development will have been revised for each project child.	*	
Implementation Objectives Relative to Self-Image and Independence		
10.1 By August 1, 1974 project children will be involved in a group school lunch program working towards more independence or greater proficiency in self-feeding.	*	
10.2 By August 1, 1974 daily experiences will be provided for acquiring knowledge of surroundings and encouraging more independence in and through the school building and on the grounds.	*	
10.3 By August 1, 1974 a variety of daily group experiences will be provided to encourage more independent student participation, to heighten opportunities for using a variety of the senses, and to further encourage peer awareness and interaction.	*	
10.4 By June 1, 1975 project students will have been taken out into the community on at least fifteen (15) separate occasions to participate in a variety of field trips/ off-site activities as evidenced by a log kept by the project director.	*	

Objective	Met	Not Met
Performance Objective Relative to Infant Stimulation Programs		
11.1 By May 15, 1975 fifty percent of the project children in the stimulation program will have demonstrated improvement/growth in some developmental area(s) as determined by a log of written staff/volunteer observations and written parent observations.		*
Implementation Objectives Relative to Infant Stimulation Programs		
12.1 By September 1, 1974 at least four (4) children will be involved in an infant-stimulation program.		*
12.2 By September 1, 1974 observations and developmental abilities/levels for each child will have been compiled and put into a written form.		*
12.3 By September 1, 1974 an individual program of daily-regular activities will have been written up for each child.		*
12.4 By February 28, 1975 mid-year observation and developmental abilities/levels for each child will have been compiled and put into written form.		*
12.5 By March 15, 1975 an individual program of daily/regular activities will have been written up for each child.		*
Implementation Objectives Relative to Parental Involvement		

Objective	Met	Not Met
13.1 By September 30, 1974 50% of the project families will be involved on a regular basis in the school's family program conducted by the project psychologist.	*	
13.2 By August 15, 1974 80% of project families will have been involved in at least one conference with a staff member to discuss the project child's instructional objectives. This will be evidenced by an appointment schedule sheet kept by the project director.	*	
13.3 By September 30, 1974 all of the project families of children in the stimulation program will have met with a staff member to discuss their child's school program. This will be evidenced by an appointment schedule sheet kept by the project director.	*	
13.4 By December 15, 1974 all project families will have indicated the amount of progress they have seen in their child by having received and filled out the Parents' Perception Progress (PPP) Scale.	*	
13.5 By November 30, 1974 80% of project families will have been involved in at least one conference with a staff member to discuss the project child's instructional objectives. This will be evidenced by an appointment schedule sheet kept by the project director.	*	
13.6 By March 30, 1975 80% of project families will have been involved in at least one conference with a staff member to discuss the project child's revised instructional objectives. This will be evidenced by an appointment schedule sheet kept by the project director.	*	

Objective	Met	Not Met
13.7 By March 15, 1975 all of the project families of children in the stimulation program will have met with a staff member to discuss their child's revised school program. This will be evidenced by an appointment schedule sheet kept by the project director.		*
13.8 By May 15, 1975 all project families will have indicated the amount of progress they have seen in their child by having received and filled out the PPP Scale.	*	
Implementation Objectives Relative to Community Awareness and Commitment		
14.1 By June 1, 1975 at least ten (10) civic organizations, church groups, or other community groups will be aware of the project commitments and future directions by having seen the project's slide presentation as evidenced by a log kept by the project director. This log will also indicate any contributions given to the project from the community.	*	
14.2 By June 1, 1975 at least 25 new volunteers will have offered their services to the project on a regular basis as determined by a register kept by the coordinator of volunteers.	*	
14.3 By June 1, 1975 at least seventy (70) community volunteers will have committed their services to the project on a regular basis as evidenced by records kept by the coordinator of volunteers.	*	
14.4 By June 1, 1975 volunteers will have had an opportunity to participate in at least three training sessions/workshops relating to their work with the project.	*	

APPENDICES

Appendix A

1974-74 Project Evaluation Plan

Goldsboro-Wayne County ESEA Title III Project

"School Experiences for the Developmentally Disabled"

1974-75

PROJECT EVALUATION PLAN

INTRODUCTION

The purpose of this document is to provide a descriptive overview of the Project's evaluation plan for the 1974-75 school year. The evaluation plan is designed to assess the extent to which the Project's objectives will have been attained. Three types of objectives were developed by the Project Director and his staff: (1) continuing goals (objectives); (2) performance objectives; and, (3) implementation objectives. The complete set of Project objectives for 1974-75 appears in the Appendix to the evaluation plan.

The evaluation plan is divided into five sections. Section 1 (Evaluation of Performance Objectives) presents the types and nature of the Project's performance objectives. Section 2 (Evaluation Instruments and Participants) describes the instruments which will be used to assess the attainment of performance objectives and the children who participated in the Project evaluation. Section 3 (Evaluation Models) presents the three diagrammatic models which illustrate the comparisons required to assess the attainment of the Project's performance objectives. Section 4 (Supplementary Evaluation Data) contains a brief statement of the sources of data which relate to and provide support for the more formal data obtained through the use of the evaluation instruments described in Section 2. Section 5 (Evaluation of Implementation Objectives) describes the sources of data by which the attainment of the Project's implementation objectives will be evaluated.

SECTION I: EVALUATION OF PERFORMANCE OBJECTIVES

There are three sets of performance objectives specified for the 1974-75 school year. The first set contains those objectives which specify the amount of progress anticipated to occur between Spring 1974 and Mid-Year 1974-75.

The second set of objectives is exactly like the first except that the comparisons are between Spring 1974 and Spring 1975. For both of these sets of performance objectives, the specified change is in terms of behaviors assessed by the various subscales of the assessment instruments used in the Project evaluation.

The third set of objectives is based upon a comparison between the amount of progress made by Project pupils between December 1973 and December 1974 with that made by a matched residential institution group during the same period of time.

For the first two sets of performance objectives, each objective specifies an anticipated amount of developmental change based on previous performance. The third set specifies statistically signficant differences between the two groups of pupils (project vs. institution). Even though statistical tests were not required to determine the attainment of the first two sets of objectives, such tests will be made to determine the statistical significance of the developmental changes observed.

SECTION II: EVALUATION INSTRUMENTS AND PARTICIPANTS

Evaluation Instruments

1. Learning Progress Scale (LPS)
   a. Language Subscale
   b. Motor Subscale
   c. Personal-Social Subscale
   d. Adaptive Behavior Subscale
2. Behavior Maturity Check List (BMCL)
   a. Grooming Subscale
   b. Eating Subscale
   c. Toileting Subscale
   d. Language Subscale
   e. Social Interaction Subscale
3. Learning Accomplishment Profile (LAP)
   a. Gross Motor Subscale
   b. Fine Motor Subscale
   c. Social Skills Subscale

d. Self-Help Skills Subscale

e. Cognitive Subscale

f. Language Development Subscale

4. Trainable Achievement Record (TAR)

a. Verbal Subscale

b. Numerical Subscale

c. Spatial Subscale

The external evaluators will be responsible for collecting all LPS, BMCL, and TAR data. LAP data will be recorded by Project staff and supplied to the external evaluators for treatment. The external evaluators will be responsible for all statistical analyses.

Spring 1974 data will be used in all analyses. These data were obtained by the external evaluators in May of 1974. Mid-Year 1974-75 data will be collected by the external evaluators by December 15, 1974. Spring 1975 data will be collected by May 15, 1975.

Evaluation Participants

The participants in the 1974-75 Project evaluation will consist of approximately 30 pupils in the Developmental School Project and approximately 20 matched residents of a nearby residential facility for the retarded. For practical purposes, the Project pupils will be divided into two subgroups — higher functioning and lower functioning. Those pupils who are able to respond appropriately to the TAR (a test which requires the child to respond to a series of stimulus questions and directions) will be arbitrarily classified as "higher functioning." Those unable to take the TAR will be arbitrarily classified as "lower functioning."

It is anticipated that these groups will be nearly equal in number. The TAR, BMCL, and LAP will be used with all higher functioning pupils. The LPS, BMCL, and LAP will be used with all lower functioning Project pupils.

SECTION III: EVALUATION MODELS

Model 1

The purpose of this model is to illustrate the design for evaluating those performance objectives which specify the amount of developmental progress anticipated to occur between Spring 1974 and Mid-Year 1974-75.

Time of Testing

Spring 1974	Mid-Year 1974-75
N= Approximately 30	for each BMCL Subscale
N= "	" " " LAP "
N= " 15	" " TAR "
N= " "	" " LPS "
$\bar{X}$ =	$\bar{X}$ =

Statistical Procedures - t-tests for correlated groups

Model 2

This model shows the design for evaluating those performance objectives which specify the amount of developmental progress anticipated to occur between Spring 1974 and Spring 1975.

Time of Testing

Spring 1974	Spring 1975
N= Approximately 25	for each BMCL Subscale
N= " "	" " LAP "
N= " 12	" " TAR "
N= " "	" " LPS "
$\bar{X}$ =	$\bar{X}$ =

Statistical Procedures - t-tests for correlated groups

Model 3

This model illustrates the design for evaluating the relative progress achieved by Project pupils with that for the matched institutional residents.

Type of Program

Developmental School Program	Institutional Program
N= Approximately 20	for each BMCL Subscale
N= " "	" " TAR "
$\bar{X}$ =	$\bar{X}$ =

Statistical Procedures - Analysis of covariance, using Mid-Year 1975 Behavior Age scores as the criterion variable and the Mid-Year 1974 Behavior Age scores as the covariate.

SECTION 4: SUPPLEMENTARY EVALUATION DATA

In addition to the data collected with formal evaluation instruments, supplementary evaluation data will be obtained through the use of questionnaires and interviews with Project parents and volunteers. Although these supplementary data cannot and should not replace developmental and behavioral evaluation information from the pupils and the staff, they do reflect critically important perceptions and attitudes of individuals central to the academic and social environments of the children.

SECTION 5: EVALUATION OF IMPLEMENTATION OBJECTIVES

It can be noted by referring to the complete list of Project objectives in the Appendix that implementation objectives related to the performance objectives of the Project have also been included. The attainment of these implementation objectives will be based upon information contained in the records kept by the Project Director and the Project staff.